



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/830,223

11/18/2003

Takahiro Nakajima

11197/5

3150

23838 7590 04/13/2007

KENYON & KENYON LLP  
1500 K STREET N.W.  
SUITE 700  
WASHINGTON, DC 20005

EXAMINER

MCDONOUGH, JAMES E

ART UNIT

PAPER NUMBER

1755

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|-----------|---------------|
|--|-----------|---------------|

3 MONTHS

04/13/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

09/830,223

Applicant(s)

NAKAJIMA ET AL.

Examiner

James E. McDonough

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 78-92 and 94-161 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 78-92 and 94-161 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Original Rejection**

(1) 3. Claims 78-118 and 125-161 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, U.S. Statutory Invention Registration H766 (hereafter referred to as Yu).

Yu discloses the invention substantially as claimed (col. 2, 1. 34 to col. 3, 1. 35; col. 3, 1. 67 to col. 4, 1. 20; col. 4, 1. 45-60; col. 5, 1. 21 to col. 6, 1. 8, col. 7, 1. 7-62). Especially note the catalyst used in col. 5, 1. 26 to col. 6, 1. 2, which discloses that a mixture of a metal compound and a phenol may be used as the catalyst, the phenol corresponding to present formula 1 of claim 125.

Yu lacks the specifics of the presently claimed process performed with its disclosed catalyst, especially the particular starting materials which may be polymerized with its catalyst.

However, Yu teaches that these starting materials may be polymerized with another disclosed catalyst similar to that of the present claims.

It would have been obvious to one of ordinary skill in the art to apply that skill to the disclosure of Yu with a reasonable expectation of obtaining a highly-useful process for making a polyester with the expected benefit of the process not requiring metals conventionally used in polyester production.

### **Response to Arguments**

(2) Applicant's arguments have been fully considered but are not persuasive.

(3) Applicants argue that the metal-containing component and the organic compound together advantageously provide sufficient, increased activity for producing a polyester and direct the examiner towards the specification. However, while it is true that the claims may be read in light of the specification, it is improper to read limitations of the specification into the claims In re Yamato, 222 USPQ 93; In re Wilson, 149 USPQ 523; Graver Tank v. Linde Air Products Co. 80 USPQ 451 (Supreme Court).

(4) Applicants argue that the reference teaches alkali metals but does not disclose that the catalyst contains an organic component having the moiety of formula 1 and 2 but that Yu discloses that phenol can be used as an organic solvent. However, there is no limitation in the instant claims requiring the metal and organic components to be on or in the same molecule.

(5) Applicants argue that the catalyst of Yu is in liquid form but, nowhere in the instant claims is it required that the catalyst be solid or not dissolve in a solvent and, as stated in the previous office action solvation of a catalytic component typically helps to increase the activity of that component.

(6) Applicants argue that their catalyst **may** provide sufficient, improved catalytic activity and that applicants have experimented with lithium acetate with no organic compound component and found insufficient activity. However, the reference is not

limited to lithium acetate. Furthermore, lithium acetate is an organic compound contrary to the applicant's assertion that it is not.

(7) Applicants argue "Nor is it obvious from Yu's disclosure that it acid-alcohol reaction would succeed with a catalyst other than the disclosed esterification catalyst". The reference anticipates the catalyst of the instant claims based on the limitations in the claims (i.e. having a metal and having a phenoxy group). However, the examiner disagrees with this argument because, complex metal catalyst are not required in esterification reactions because, even simple catalyst such as  $H^+$  and  $OH^-$  will efficiently catalyze esterification reactions.

(8) With respect to the new claim requiring Ar-N and not Ar-O it can be seen in USP 4,547,547 at column 13, lines 5-20 that a compound containing Ar-N groups is used, which, is incorporated into the Yu reference by reference, and mentions that the same chemical is used in the invention of Yu.

**(9) THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

Art Unit: 1755

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

(10 Any inquiry concerning this communication or earlier communications from the examiner should be directed to James E. McDonough whose telephone number is (571)272-6398. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JEM 4/3/2007

  
AILEEN FELTON  
PRIMARY EXAMINER